

**Notice of Allowability**

Application No.

09/639,543

Examiner

Hugh Jones

Applicant(s)

HESS ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/16/2000.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☒ The drawings filed on 16 August 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

*Hugh Jones*  
HUGH JONES P.D.  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2103

**DETAILED ACTION**

1. Claims 1-21 of U. S. Application 09/639,543, filed 08/16/2000 are presented for examination.

**Allowable Subject Matter**

2. Claims 1-21 are allowed over the prior art of record. The claims having been allowed, formal drawings are required.

3. The following is an examiner's statement of reasons for allowance: The closest prior art are U. S. Patents 6,041,263 and 6,038,540.

- U. S. Patent 6,041,263 discloses a method for simulating and optimizing a plant model. The plant model having a multiplicity of equipment models for a desired processing plant and a multiplicity of local property models for the material components within the plant includes providing a set of initial values for each property model in a data storage area. A first set of coefficients in each property model is determined. A set of equations representing the equipment models and property models, wherein the property models having a complementarity formulation, are executed simultaneously by the digital processor by using the first set of coefficients to determine a second set of coefficients in each property model. The second set of coefficients are stored in the data storage area. The set of equations representing the equipment models and property models are executed simultaneously by the digital processor by utilizing the second set of coefficients from the data storage area to

determine values of the processing plant model. The determined values of the processing plant model are stored in the data storage area. The method can also be used for simulating a dynamic plant model.

- U. S. Patent 6,038,540 discloses an adaptive process control and profit depiction system which is responsive to both process measurement input signals, economic inputs, and physical environment inputs. The process control system features an interactive optimization modeling system for determining manipulated process variables (also known as setpoints). These manipulated process variables are used to position mechanisms which control attributes of a manufacturing system, such as a valve controlling the temperature of a coolant or a valve controlling the flow rate in a steam line.

However, the prior art of record does not disclose "performing simulataneoualy with said optimization cycle a simulation cycle at a second rate which is equal to or faster than said first rate" (second limitation of the independent claims), in the context of the claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2128

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be:

directed to:

Dr. Hugh Jones telephone number (703) 305-0023, Monday-Thursday 0830 to 0700 ET, *or* the examiner's supervisor, Kevin Teska, telephone number (703) 305-9704.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

*or* (703) 308-1396 (for informal or draft communications, please label "*PROPOSED*" or "*DRAFT*").

Dr. Hugh Jones

Primary Patent Examiner

July 18, 2004

  
HUGH JONES PH.D.  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

Best Available Copy